

CORRESPONDING NUCLEOTIDE

A C T G T T A G C T A A T T G G REF. SEQ.

C A A [] C G A PROBE FROM FIRST PROBE SET

C A A [] C G A CORRESPONDING PROBES

C A A [] C G A FROM SECOND, THIRD AND

C A A [] C G A FOURTH PROBE SETS

INTERROGATION POSITION

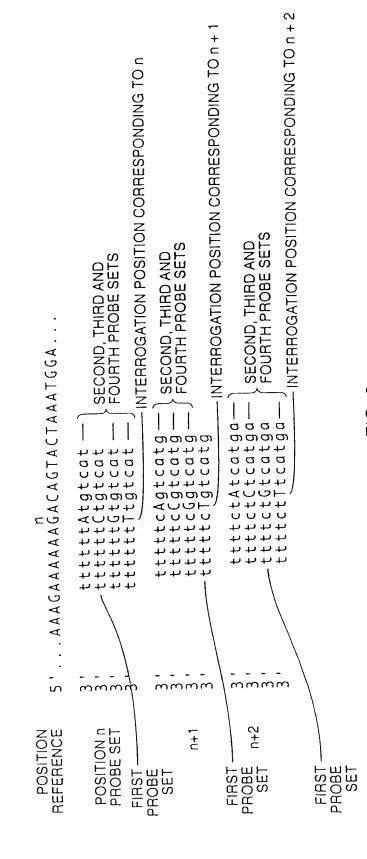
FIG. 1

ACTGTTAGCTAATTGG REF. SEQ.

GGGCAAMCGAGGGGGPROBE FROM FIRST PROBE SET

LEADING SEGMENT OF TRAILING SEQUENCE COMPLEMENTARITY SEQUENCE







INTERROGATION POSITION CORRESPONDING TO n + 2 INTERROGATION POSITION CORRESPONDING TO n + 1 INTERROGATION POSITION CORRESPONDING TO n PROBE SETS A, B &C PROBE SETS A, B &C PROBE SETS A, B &C ...AAAGAAAAAGACAGTACTAAATGGA... ttttctAtcatga— ttttctCtcatga— ttttctTtcatga tttttcAgtcatg — ` tttttcCgtcatg — ` tttttcGgtcatg — ` tttttAtgtcat -tttttGtgtcat -tttttTtgtcat mmmS mmmmmmPOSITION n PROBE SET POSITION REFERENCE n+2 <del>+</del>

FIG. 3B





 $n_1n_2n_3n_4n_5$  A C T G T T A G C T A A T T G G  $\checkmark$  REF. SEQ.

A-LANE TOAC GATA AGAA CAAT AAAG C-LANE TOCC GATA ACGA CACIT AACG G-LANE TOCC GATA ACGA CACIT AACG T-LANE TOTC GATA ACTA CATIT AATG

WT. LANE TGAC GACA ACAA CAAT AATG

FIG. 4

ACTGTTAGCTAATTGG CENTRAL INTERROGATION POSITION

AATCGAT 3' INTERROGATION POSITION

THAACC 5' I 3' INTERROGATION

FIG. 4B

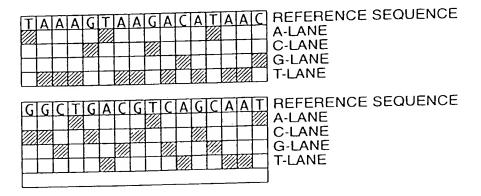
**POSITION** 

GGGXCCCTTAF

000<u>0</u>000 000<u>0</u>000 000<u>0</u>0000

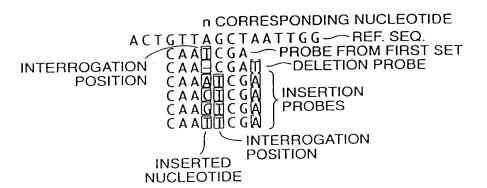
FIG. 4C





3'-CCGACTACAGTCGTT 3'-CCGACTCCAGTCGTT 3'-CCGACTGCAGTCGTT 3'-CCGACTTCAGTCGTT









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n CORRESPONDING NUCLEOTIDE

A T T C C C G G G A T C PROBE FROM FIRST PROBE SET

A G G G C C A T CORRESPONDING PROBES

A G G G C C A T FROM SECOND, THIRD AND

A G G G C C A T FOURTH PROBE SETS

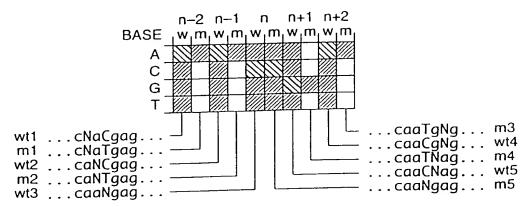
HELPER MUTATION

INTERROGATION POSITION
```

FIG. 9



## **POSITION**



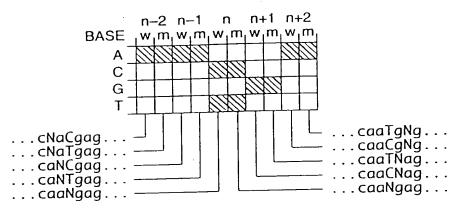
SINGLE BASE-PAIR MISMATCH

WILD-TYPE SEQUENCE: 5'=AGGTCAACGAGCAA=3'

MUTANT SEQUENCE: 5'=AGGTCAATGAGCAA=3'

## FIG. 10

## **POSITION**



## **EXACT COMPLEMENT**

WILD-TYPE SEQUENCE: 5'=AGGTCAACGAGCAA=3'

MUTANT SEQUENCE: 5'=AGGTCAATGAGCAA=3'

FIG. 11

FIG. 12A

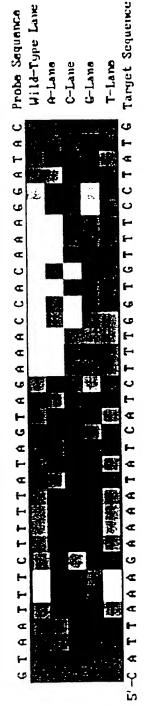


FIG. 12B

CTCTTTCCTATC

S'-C A TTAAA GAAAATAT CATCTTT G

1

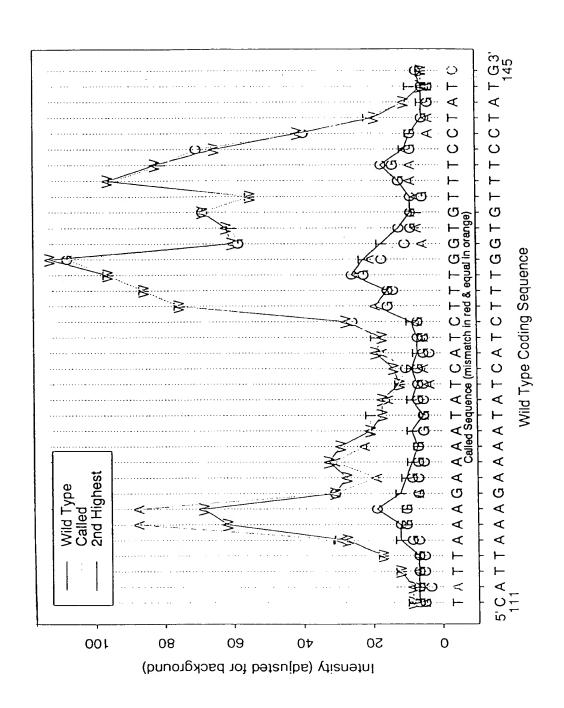
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FIG. 12C

Probe set that detects the deletion hest





-1G. 13A

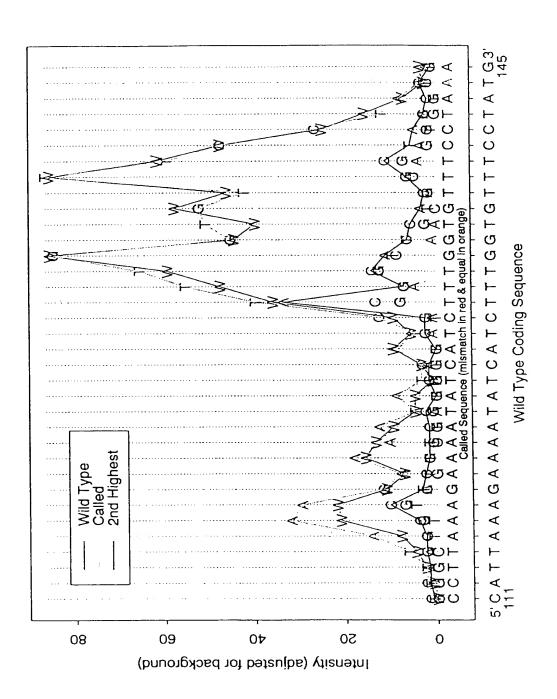


FIG. 13B



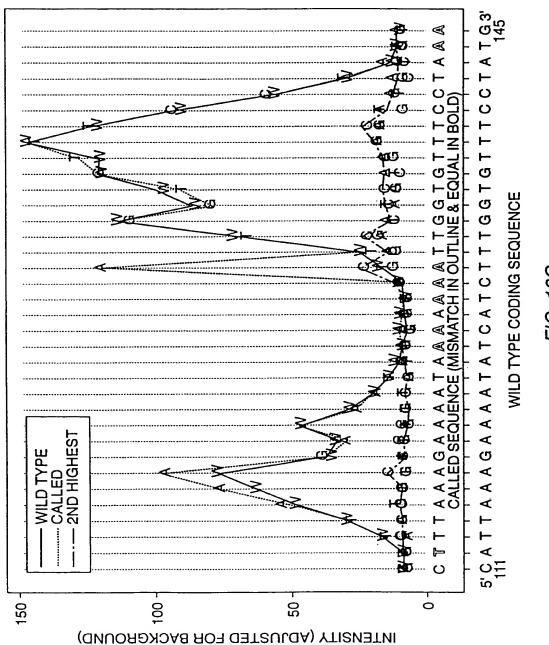
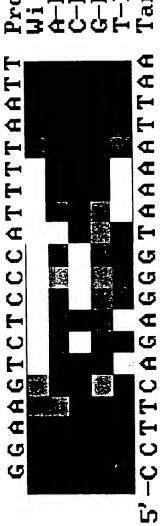


FIG. 13C

FIG. 14A



Target Sequence Probe Sequence Wild-Type Lane A-Lane C-Lane G-Lane T-Lane

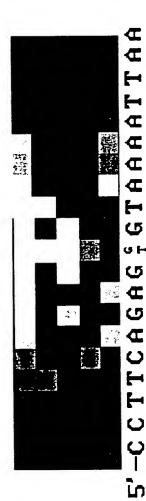


FIG. 14B



FIG. 14C

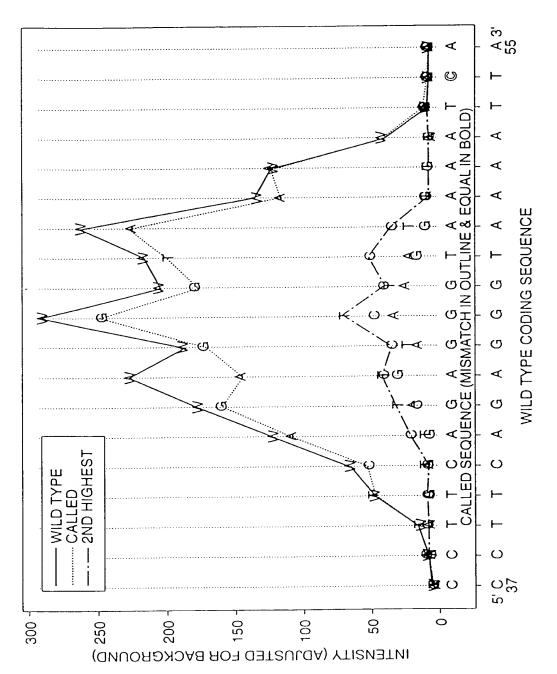
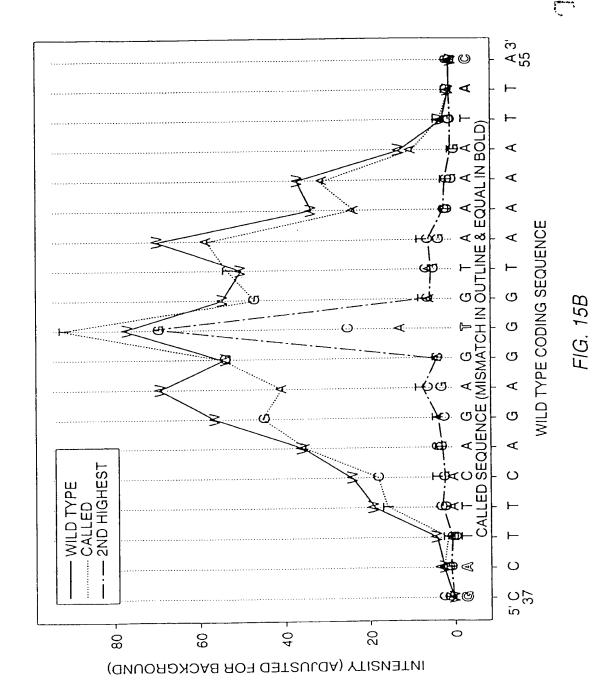


FIG. 15A



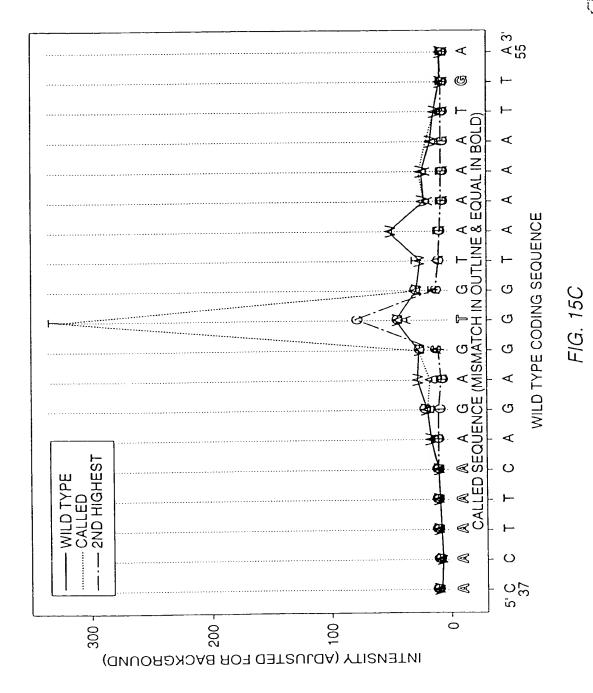


FIG. 16A



A-Lane C-Lane C-Lane

T-Lane Target

MM made from a wild-type genomic DMM source

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RMA made from a d7508 heterozygote DNA source

Probe set that detects the mutation

FIG. 16B

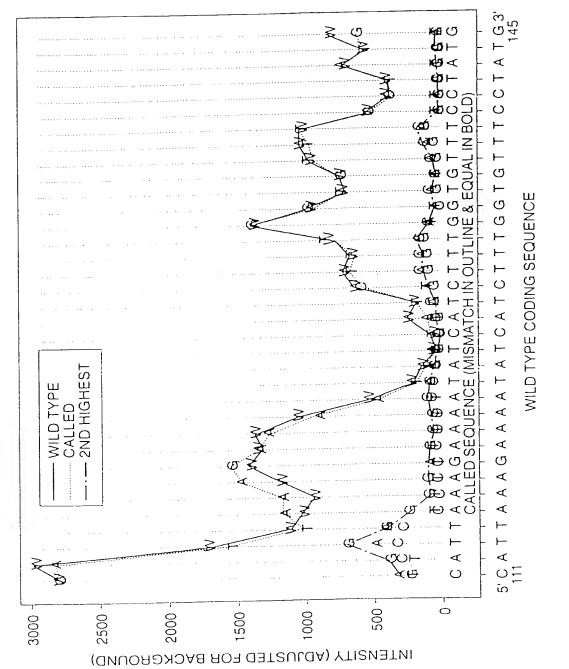
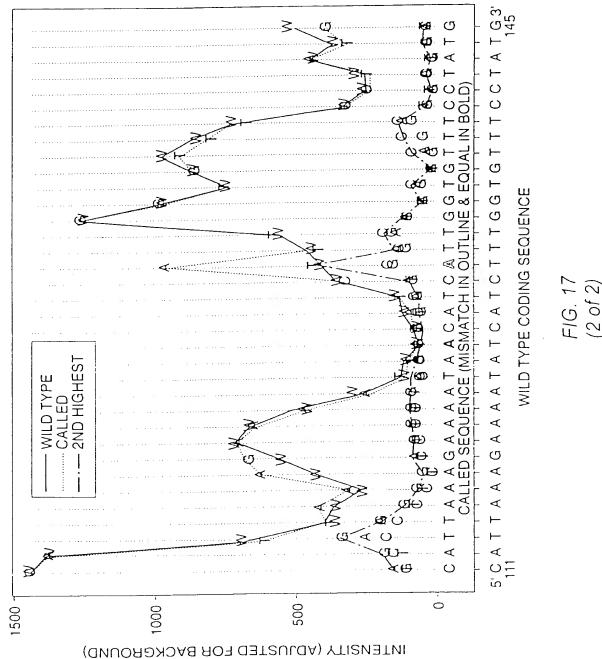
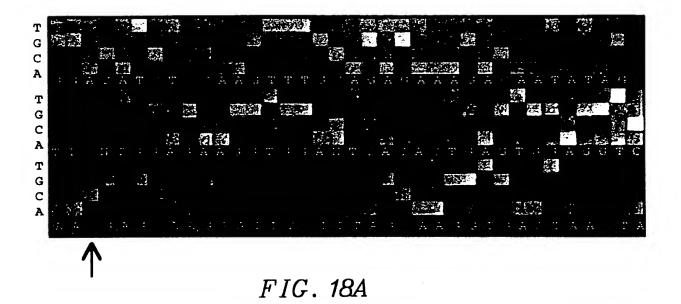


FIG. 17 (1 of 2)

TOP OF ALL STRONG







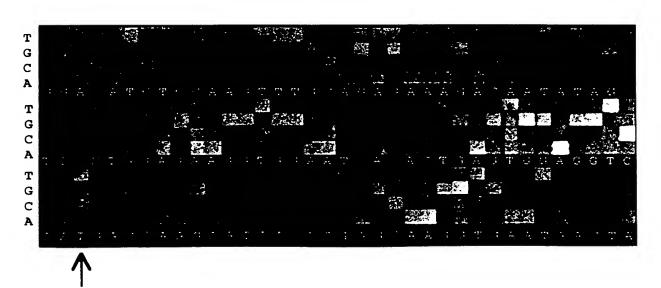
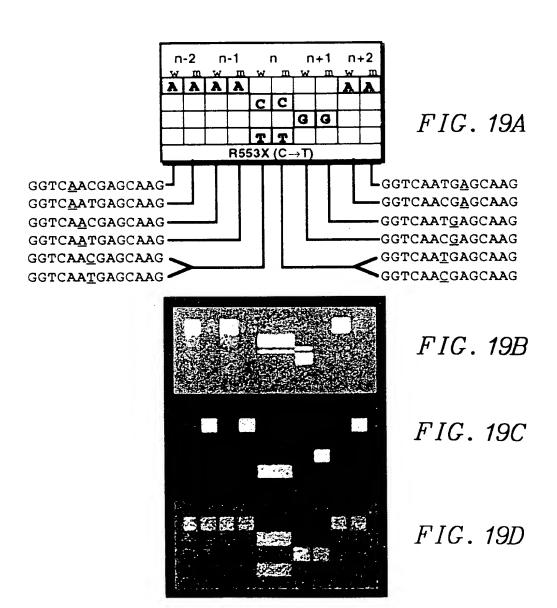
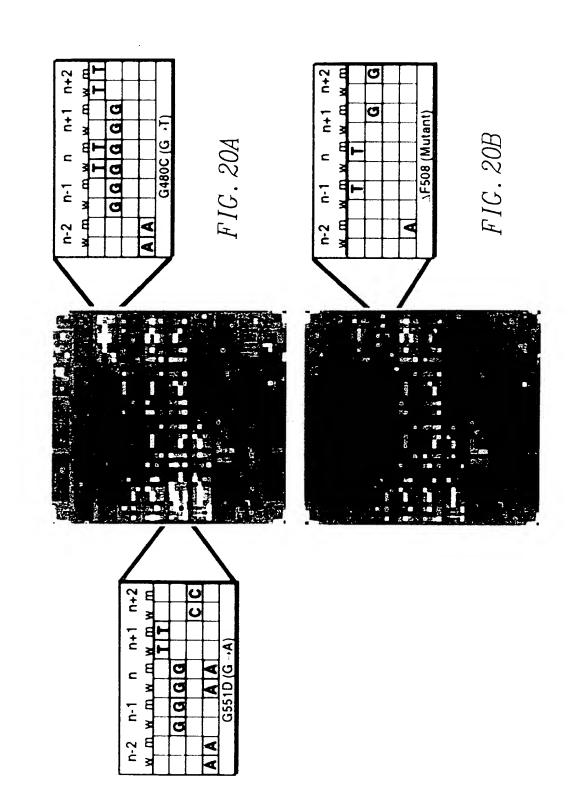


FIG. 18B







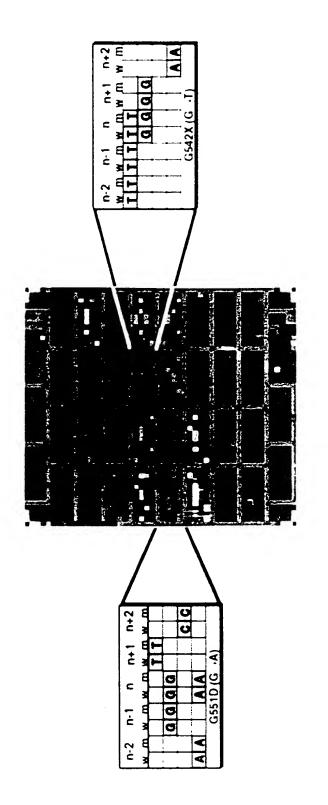


FIG. 21





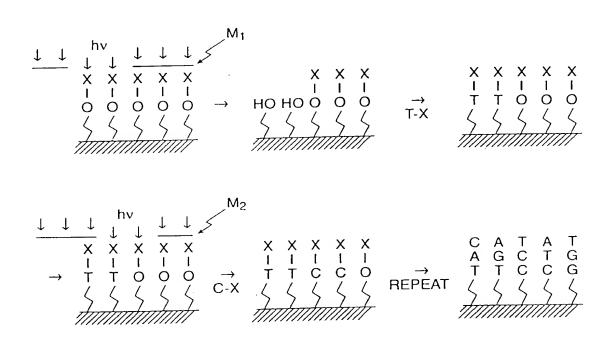
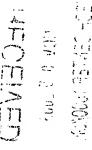
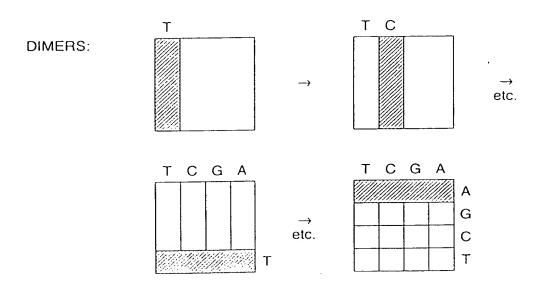


FIG. 22







IN POLYNOMIAL NOTATION:  $(T + C + A + G)^2 = ALL DIMERS$ 

TRIMERS:

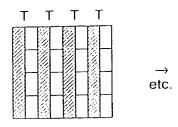
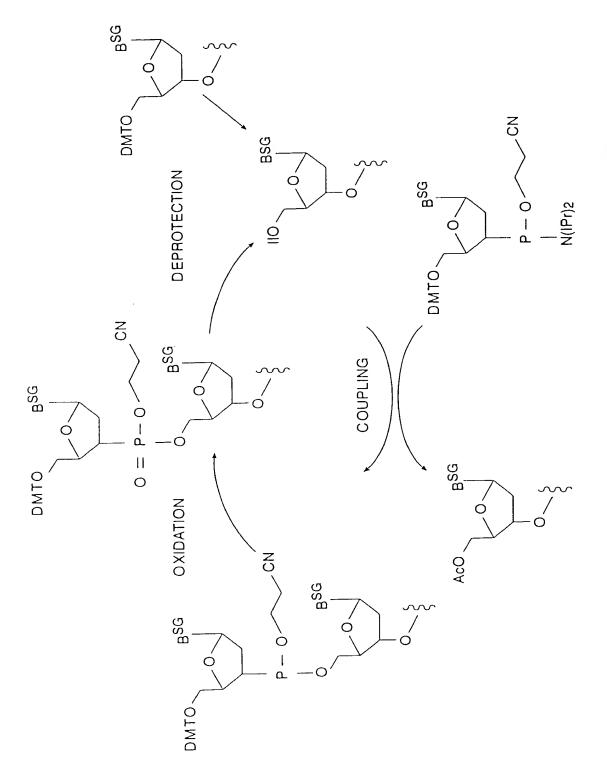


FIG. 23



KHOMINED.

Z /



PYRIDIN, 4°C

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MeNPOC-CI

 $_{\mathsf{B}^{\mathsf{SG}}}$ 

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FIG: 25



HNO3, 4°C

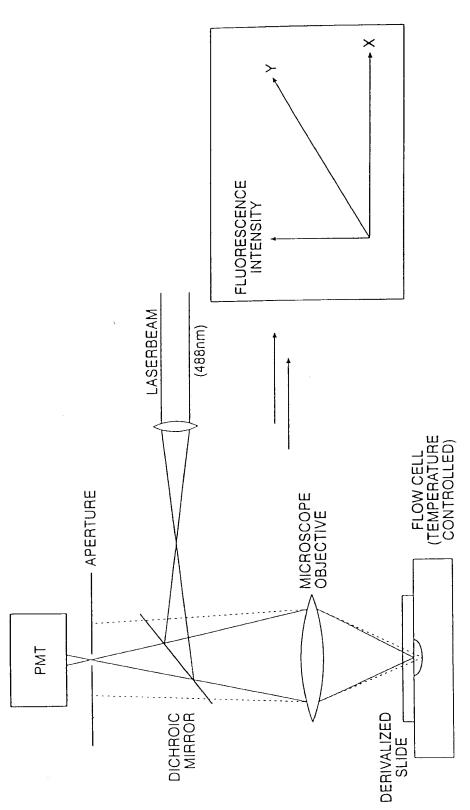
NaBH4, EIOH

FIG. 26

COCI2

TOLUENE, II





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